

Pharmacy NewsCapsule

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CHF and NSAIDs a No/No?

Doug Englebert

A recent study in Archives of Internal Medicine would suggest that caution be taken when older persons use nonsteroidal anti-inflammatory drugs (NSAIDs) as it increases their risk of hospitalization for congestive heart failure (CHF) (NSAIDs include medications like ibuprofen and naproxen).

The jury is probably still out but caution should prudently be taken in older persons who have a history of heart disease. Guidelines have been suggested that NSAIDs be discouraged in individuals with damaged but compensated left ventricle. If NSAIDs are to be used, use short acting products like diclofenac, Do not use them longer than necessary and warn patients if they experience shortness of breath to seek medical attention as appropriate.

Thanks!

So far it appears this newsletter has been well received. I appreciate the many positive comments and suggestions that have been sent to me. Most of all I appreciate the time you all have taken to read the newsletter. I hope it continues to assist you in striving to attain our goals.

Doug Englebert

Medication Alternatives for Behavior Treatment

Doug Englebert

Pharmacy Practice Consultant PRQI

The impact of the 1987 OBRA (Omnibus Budget Reconciliation Act) has appropriately led us in the direction where the use of antipsychotics is decreasing in inappropriate situations. Some of those inappropriate uses include restlessness, agitation and anxiety. However, this impact has given rise to the use of other medications for treating these conditions. Namely medications like divalproex sodium (Depakote®) and carbamazepine (Tegretol®) are becoming more and more commonly used to treat restlessness, aggression, impulsivity and anxiety.

The question has come up as to how these medications should be monitored. Typically when these medications are prescribed to treat a problematic behavior the "target" behavior is clearly defined and documented. The clinical recommendations are to start with very low doses and titrate the medication to the lowest dose that effectively treats the targeted behavior. In some, if not many cases, you will find the doses of these medications for treating behaviors will be much lower than what you may be seeing used for seizure disorders. They most definitely will be lower in the elderly population as compared to younger adults.

As far as monitoring goes, Tegretol® will require frequent blood level monitoring for toxicity. In addition, Tegretol® requires routine hematological monitoring, electrolyte panel, and liver function tests. In comparison, Depakote requires only occasional liver function tests and monitoring for thrombocytopenia, an abnormal blood condition in which the number of platelets is reduced.

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New Drugs April 1- July 30, 2000

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Brand Name	Generic Name	Use
Olux	Clobetasol	Foam for short-term treatment of inflammatory and pruritic dermatoses of the scalp.
Welchol	Colesevelam	Oral tablet for high cholesterol, specifically primary hypercholesterolemia (Fredrickson Type IIa).
Novolog TNKase	Insulin aspart Tenecteplase	Injection for diabetes mellitus. Injection for myocardial infarction.
Trelstar Depot	Triptorelin	Palliative injection for advanced prostate cancer.
Optivar	Azelastine	Eye drop for treating itchy eyes associated with allergic conjunctivitis.
Lantus Zyvox	Insulin glargine Linezolid	See "Drug of the Month" Tablet or suspension for the treatment of vancomycin-resistant <i>Enterococcus faecium</i> infections.
Mobic Exelon	Meloxicam Rivastigmine	Oral tablet for osteoarthritis. Oral capsule for mild to moderate Alzheimer's Disease.
Zonegran	Zonisamide	Adjunctive therapy in treatment of partial seizures in adults with epilepsy.

Focus Drug of the Month

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Since this newsletter will be published every other month you will actually see two medications presented in this section.

Keppra® (levetiracetam)

This is a new medication approved for the treatment of partial seizures. It is used in combination with other anticonvulsants in the management of partial seizures in adults. Similar medications include Lamictal® and Topamax®.

Keppra® is usually started at 500 mg twice a day and should be titrated up every two weeks if response is inadequate. The maximum dose is 3 grams daily. It does not need to be given with food.

Keppra® dosing does need to be adjusted for those individuals with compromised renal function. That means in most elderly populations the medication should be started at lower doses.

Keppra® does pose a risk of adverse events like somnolence, fatigue, dizziness, behavioral changes and coordination difficulties. Adequate precautions should be advised. At this time there appears to be no clinically significant drug interactions.

Lantus® (insulin glargine)

This is a new long-acting insulin that is approved for once-daily subcutaneous injection at **bedtime** for individuals with Type 2 diabetes who require basal insulin for control of hyperglycemia.

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Med Error Corner

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The Institute of Medicine (IOM) published a report, *To Err is Human*. How many of you have read it? How many of you have seen editorials and articles by individuals criticizing it while others defends it?

In either case, the report and other articles shed light on the problem of medical errors and its cost to society. The general public has been made aware of the impact of these errors and only time will tell us what the full impact will be. In this issue of the

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newsletter I want to draw on some information in the IOM report that is probably well accepted and may help us decrease one type of medical error, medication errors.

Medication use involves multiple processes including prescribing, dispensing, administering, monitoring, system control and management control. Each of these processes can involve multiple steps, multiple types of automation and multiple individuals. Therefore, there can be multiple reasons why medication errors occur.

Let's focus on the specific aspect of prescribing. Prescribing involves the assessment of need and appropriate medication selection. Prescribing also involves individualization of a drug regimen and a designation of a therapeutic goal for that drug regimen. Errors commonly seen in prescribing involve inadequate assessment of hepatic and renal function, inadequate drug allergy history, wrong drug name selected, wrong dose selected, wrong dosage form, wrong abbreviation, incorrect dosage calculation, and the wrong frequency. This list is by no means complete.

When a prescribing error is identified an autopsy of that error needs to occur in order to get to the root cause and impact change so that the error or similar errors do not occur in the future. Simple steps like including a diagnosis on the prescription or asking a patient why they were prescribed a specific medication can prevent many significant errors. However without looking at root causes, an organization may never get to that realization.

As medical errors continue to be scrutinized, medication errors will undoubtedly continue to be identified as a significant component of those errors. I hope this discussion helps you to identify medication errors specifically prescribing errors. Identification is the first step to avoiding future errors.

Future discussions in this section will concentrate on other aspects of medication use and where errors can occur.

It is also indicated for use in adult and pediatric Type 1 diabetes mellitus.

Lantus® has been shown to be just as efficacious as NPH insulin with regard to metabolic control. However, Lantus does appear to induce a pharmacological effect for 24 hours without a peak effect and the variable absorption seen with Ultralente insulin. This, in theory, may be an advantage for Lantus®; however, that advantage is yet to be proven.

Things to remember about Lantus®:

- Prolonged effect of Lantus® may delay recovery from hypoglycemia.
- Lantus® cannot be diluted or mixed with other insulins or solutions as NPH can.
- Lantus® vials should be thrown away if the solution becomes cloudy or has particles in it.
- Lantus® doses should be reduced 20% from the previous total daily NPH dose prior to treatment initiation to reduce the risk of hypoglycemia.
- Lantus® when written out can look a lot or sound a lot like Lente so be aware of this potential medication error.

If there are medications you would like featured here please send an email to Doug at engleda@dhfs.state.wi.us

Did you know?

A recent study indicated that up to 76% of patients stop taking their medication, do not take the correct dose, or use other medication without their physician's knowledge.

Once again it is important that treatment with these medications start at low doses that are titrated up very slowly. Individuals should be maintained on the lowest effective dose. These medications should only be used for as long as needed and should definitely be reevaluated if they appear to no longer be working. This can be judged by clearly defining the targeted behavior and setting realistic goals prior to initiation of therapy. **Lastly please remember that medications, even these alternatives, very often are the last resort in behavior management. Therefore, they should only be used after a thorough assessment and consideration of other behavioral interventions.**

Consultant's Corner

Doug Englebert

Pharmacy Practice Consultant PRQI

This section is basically a miscellaneous section that will show up each issue and will contain tidbits of information most of which will come directly from your questions. If there is a topic you want more detailed information about please drop me an email me at engleda@dhfs.state.wi.us and I'll see what I can find.

- Is Paxil being used for anxiety? Paxil carries a FDA approved indication for social anxiety syndrome. Due to this indication and the characteristics of the medication it is used in practice as a treatment for general anxiety.
- Mellaril Update: In July of this year the following warnings have been added to Mellaril labeling due to FDA and manufacturer recommendations.
 - Mellaril is now indicated only for patients with schizophrenia who fail to show an acceptable response to adequate courses of treatment with other antipsychotic medications. Also, Mellaril has not been evaluated in controlled studies for patients with refractory schizophrenia.
 - A boxed WARNING states that Mellaril has been shown to prolong the QTc interval. ECG changes such as, QT prolongation, and cardiac arrhythmias, such as torsade de pointes, have been shown in a dose related manner and possibly even sudden deaths have been associated with drugs with this potential, including Mellaril.
 - Mellaril is now contraindicated for use in combination with certain serotonin reuptake inhibitors (SSRIs) or other drugs that inhibit the cytochrome P450 2D6 isozyme (eg. fluoxetine and paroxetine); propranolol, pinodolol, and fluvoxamine and other drugs that prolong QTc interval. It is also contraindicated for use in patients who have reduced cytochrome P450 2D6 isozyme levels or in patients who have a congenital long QT syndrome or a history of cardiac arrhythmias.

Recommendations:

- ✓ Mellaril is not recommended as a first-line antipsychotic medication.
- ✓ Patients who are being considered for treatment with Mellaril should have a baseline ECG and serum potassium levels measured.
- ✓ Periodic ECG and potassium levels should be done and Mellaril treatment should be discontinued on patients with a QTc interval over 500 msec. Serum potassium levels should be normalized prior to initiating treatment with Mellaril.
- ✓ Patients who are currently on Mellaril should be fully informed of the above information.

References are available upon request.